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# Use of Technology to Manage Tax Compliance Behavior of Entrepreneurs in the Digital Economy

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**Abstract-** Taxation is a complex and most important fiscal tool used by the government to balance fiscal efficiency and the country's social wellbeing. As a result of the fourth industrial revolution, digital disruption makes technology an inseparable tool across all economic sections. This study investigates how the use of technology in taxation influences the compliance decision of entrepreneurs in the digital economy. To achieve this objective, this study employs phenomenological inquiry to conduct qualitative research. This study's findings reveal that trust in the technology used by the tax authority and the power of tax authority in implementing the technology-driven tax system influence maintaining tax compliance, and it breeds confirmatory compliance as a new compliance strategy in the digital economy.

**Index Terms-** Tax Compliance; Tax Behavior; Confirmatory Compliance, Technology Adoption, Digital Economy

## I. INTRODUCTION

Tax is the price paid by citizens and businesses for their wellbeing and civilization. It is a civic duty of citizens and businesses to pay a fair share of taxes (Dalrymple, 2003 as cited in Bobek, Roberts & Sweeney, 2007) and report the correct amount of income and expenses in their tax return. Tax helps the government maintain the balance between fiscal efficiency and social wellbeing (Biabani, & Ramezani, 2011; Isa, 2014).

In Sri Lanka, the contribution of tax revenue to GDP is 12.6% (Central Bank, 2018). Out of total tax collection, 96% of taxes are paid voluntarily by taxpayers (Department of Inland Revenue, 2018). As per the Department of Census and Statics (2017), there are around one million business establishments in all three sectors – industrial, trade, and services. Furthermore, 8.2 million people work in the private and public sectors (Central Bank, 2018). Out of the total business establishment, 320,556 business establishment and 664,828 salaried employees (IRD, 2018) contribute to the country's tax revenue. It is evident that 96% of tax revenue comes from 33% of business establishments and 8% of the country's salaried employees.

OECD (2014) claims that smaller firms have the opportunity to transact across borders with the advancement of technology. These smaller entities as micro multinationals (Dimitratos et al., 2014; Wankel, 2009) shifting their profits to low or no-tax

jurisdictions or artificially reduce their taxable income (OECD, 2014).

There is a growing concern among scholars to understand citizen's and businesses' transaction behavior in the digital economy. Hence, this research focuses on examining how the use of technology in taxation influences micro multinationals' tax compliance decisions.

## II. LITERATURE REVIEW

Studying the tax compliance behavior gets more attraction from scholars after the seminal article published by Allingham and Sandmo in 1972. Later, researchers focus on studying tax compliance behavior based on behavioral factors. Boylan & Sprinkle (2001) argued that even the economic factors are important to assess compliance behavior, they are not sufficient to explain the degree of tax compliance.

Scholars used Equity Theory, Utility Theory, Prospect Theory, the Theory of Plan Behavior, Risk Reference Theory and Fraud Diamond Theory, Deterrence Theory, Agency Theory, and Socialization Theory to understand factors that influence compliance decisions of taxpayers. There are three approaches – economic approach, behavioral approach, and criminological approach to study the tax compliance behavior. Under the economic approach, researchers identify tax rate, audit probability & severity of the penalty, the informational role, and the cost of compliance influence taxpayers' compliance decisions. Researchers investigate taxpayer's compliance behavior based on psychology and sociology (Sapiei et al., 2014) under the behavioral approach. Psychological studies found that taxpayer's reporting decision is guided by moral sentiment (Trivedi, Shehata, & Lynn, 2003). In a psychological approach, fiscal psychologist and social psychologist examined how emotional reaction, attitude, and perception influence tax compliance decision (Alabede, Ariffin, & Idris, 2011; Bobek & Harfied, 2003; Maroney, Rupert, & Anderson, 1998; McKerchar, Bloomquist, & Pope, 2013; Yusof & Lai, 2014; Vazquez & Togler, 2009). Researchers examined how reporting behavior of peers and group dynamics, religiosity, and cultural value impacted tax compliance decisions in the sociological approach. Researchers who followed the criminological approach studied how the opportunity use to evade taxes.

In the late 1980s, scholars have attempted to integrate economic and non-economic factors (Kirchler, Kogler, & Muehlbacher, 2014; Yaniv, 2009) to investigate taxpayers' compliance behavior. In the modern tax compliance literature, the seminal article published by Kirchler in 2007 integrates all three approaches to study the compliance behavior of taxpayers. He introduced the Slippery Slope Framework (SSF) by integrating economic (audit probability, sanction, law, cost of detection) and non-economic (social norms, transparency, fairness) factors to explain tax compliance behavior based on the psychological perception of a person. In the SSF framework, Kirchler et al., (2008) explained that trust in authority and power of authority influence tax compliance behavior of citizens and businesses. Slippery Slope Framework assumed that people pay taxes voluntarily when they perceived trust in tax authority while the power of authority important for enforcing tax compliance among the citizens and businesses.

With the digitalization of business, researchers integrate technology as a factor to study people's behavior in a different discipline. The most recent researchers use the Unified Theory of Acceptance and Use of Technology (UTAUT) introduced by Venkatesh et al., (2003). As the tax authorities increasingly adopt technology to enhance tax compliance, it is important to understand how the technology influences taxpayers' compliance decisions.

### III. METHODOLOGY

McKerchar (2008) explained that tax compliance behavior as a complex social phenomenon could be studied through different philosophical approaches. Kirchler (2007) highlights that it is a person's perception about their compliance obligation they need to comply with. Hence, tax compliance is a phenomenon people interact with the context they live in. In analyzing the tax compliance behavior, McKerchar (2008) highlights an inherent weakness in applying a quantitative approach. Hence, she proposed a qualitative approach as a best-suited strategy to study tax compliance behavior.

Tax compliance as a complex psychological construct of human experience, Smith (2017) suggests hermeneutic (Interpretative) phenomenological approach is appropriate to understand the meaning of taxpayers' behavioral description.

Taxation is a complex and highly technical subject in nature; the researcher's background knowledge, context, and previous understanding of the subject matter are important. In attempting to

understand compliance behavior, researchers interpret what they see, hear and understand (Creswell, 2007). McKerchar (2008) highlighted that it is difficult to access data in taxation research. Yong (2011), in his research, reveals that it is important to establish a good relationship among Asians to get appropriate access to correct information in taxation research.

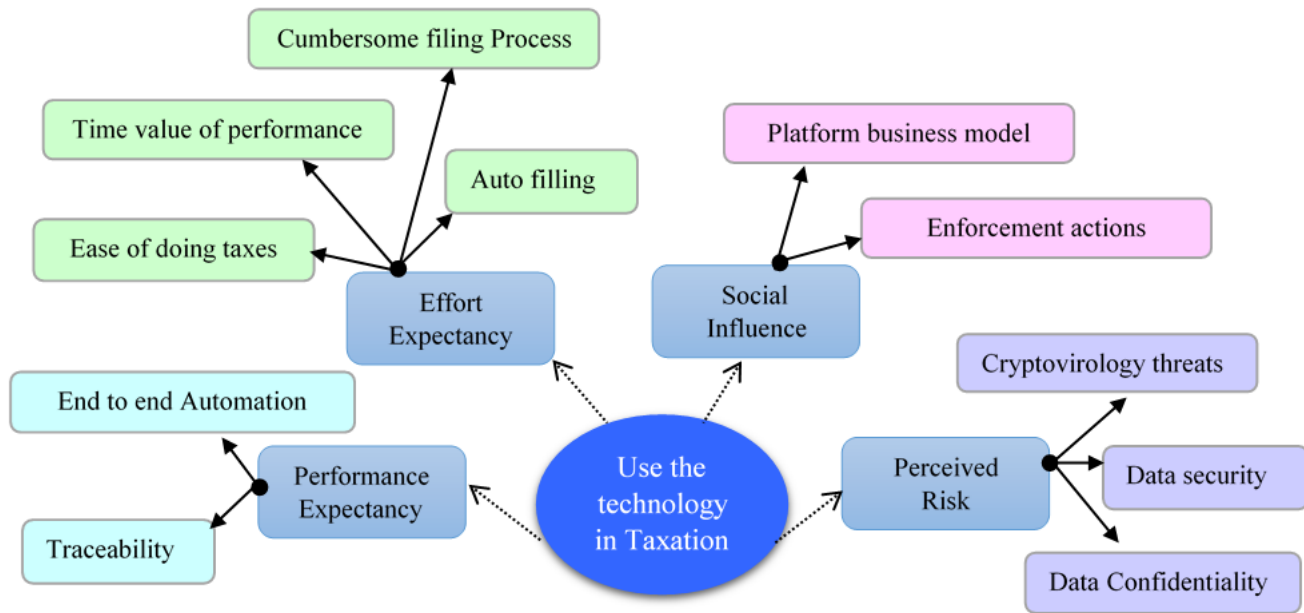
In the phenomenological study, researchers focus on gaining a deeper understanding of people's lived experiences about the specific phenomenon (Leavy, 2017). As the theming of data is more appropriate to explore participant's physiological belief in phenomenology (Saldana, 2016), Boyatzis (1998) suggests theory-driven thematic analysis for analyzing qualitative data gathered from qualitative research.

The semi-structured in-depth interview was conducted with eight micro multinationals selected based on a convenient sampling method. Data collected from interviews after the participants' prior permission was transcribed using the Trint software system. The phenomenological data reduction process final data corpus was analyzed using Atlas.ti version 9 qualitative data analysis software package.

### IV. DATA ANALYSIS

Data Analysis of qualitative research is the process of "making sense out of the data" (Merriam, 2009). Yin (2011) highlights that even the process is important to analyze qualitative data, there is no universally accepted routing. Literature provides different methods to conduct thematic analysis. Boyatzis (1998) proposed two approaches - Theory-driven thematic analysis and Data-driven thematic analysis to conduct thematic analysis. The theory-driven thematic analysis derives themes of the phenomenon under investigation from own theory or pre-exists theoretical framework. On the opposite, the data-driven thematic analysis derives themes purely based on the respondent's description in the interview.

This study employed the theory-driven thematic analysis to understand how the use of technology influences the tax compliance behavior of entrepreneurs in the digital economy. Research findings gathered from participants are organized under the global theme, as shown in Figure 1. Each global theme identified in the research consists of the factors that influence entrepreneurs' tax compliance decisions in the digital space.



**Figure 1: Effect of use technology in taxation**

Many researchers studied how technology adoption influence on behavioral intention of people in different setting through Unified Theory of Acceptance and Use of Technology (UTAUT). This research uses the UTAUT model as a base to evaluate taxpayer's perception about technology adoption in taxation. Out of many factors in the UTAUT model, this research identified Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Perceived Risk of the system (PR) are influencing factors in the tax compliance behavior of micro-multinationals in Sri Lanka.

#### **Performance Expectancy**

Entrepreneurs believe that digitizing the tax compliance process makes it easy for them to comply to reduce the compliance cost.

*"Digital transformation is going to help so much. It reduces cost. Even reducing time to attend compliance activities in a way reduces cost. I mean, making things easy mean digitizing."*

Tax compliance as a complex phenomenon cannot resolve using a manual system. Human intervention in a manual system is very high and cannot predict outcomes. It leads to more and more manipulation. Hence, technology adoption in tax compliance reduces the manipulation.

*"People only believe in systems and processes. Why the United States is the United States, and Singapore is Singapore. Not because of individuals. Because of processes and systems. When the populations grow and problems become complex, these complex problems cannot resolve using manual methods. You need automation."*

It shows that people believe the use of technology in taxation reduces the compliance cost as the automated system improves the level of performance than the manual system.

#### **Effort Expectancy**

Entrepreneurs look at how ease they can perform their tax compliance obligation. This is tested by Venkatesh et al., (2003) under the effort expectancy. They identified that ease of use system increase compliance.

*"If the bank is providing entire information about transactions, I do not want to fill the tax return. The system is automatically declaring my information"*

Ease of use technology in taxation shows very prominent place. Entrepreneurs compare how much effort they need to file tax returns in Sri Lanka with other Countries. They perceived that technology associated with paying taxes and filing returns ease tax compliance.

*"You know, tax payment in the USA is pretty easy because they use an online system. When you enter your numbers, the system tells you what amount you need to pay."*

Even though the situation in digital literacy in the country use of technology helps to perform tax compliance activities easily than the use of paper and pencil.

### Social Influence

Another important factor observed in this research is how taxpayers bring everyone from the platform economy to the tax net. The UTAUT Model (Venkatesh et al., 2003) identifies social influence as another factor in accepting the technology.

*“If you take Uber, it is not a tax payment company in Sri Lanka. Similarly, if you take Daraz they get paid overseas. They are all registered in the USA. If you look at Uber, it is a USD 5Bn loss company in the USA. Nevertheless, the Sri Lankan operation is profitable; they are neither pay taxes in Sri Lanka nor the USA. This is a smart move. Booking.com is based in the Netherlands. Their parent company is not profitable. Every booking going from Sri Lanka neither pay taxes in Sri Lanka nor in the Netherlands”*

Taxation in the digital economy gets the attention of the platform-based business model. Taxpayers look at what action tax authority is taking against platform base business in Sri Lanka.

*“Now the authorities have to figure out how to tax the online business, which is struggling, Right. I do not think Facebook is paying taxes in Sri Lanka. Look at the amount of advertising on Facebook by Sri Lankans. Why is Sri Lanka free from taxes for Facebook? So the fact that the authorities have not figured out to tax these businesses.”*

This respondent highlights the importance of other parties in the economy taking into the tax net. As the new wave in the digital economy, Platform-based business models need tax authority to pay special attention to bring them into the tax net. Even social influence does not show an important factor in adopting technology for compliance; taxpayers believe it is not equitable if other people do not bring into the tax net.

### Perceived Risk

Trust of the technology-based tax compliance system is dependent on the perceived risk associated with the tax system.

*“Of course, I am worried about how they (refer IRD) have implemented this (refer RAMIS – Revenue Administration and Management Information System). I am very concerned about the security implication and so on.”*

As a facilitating condition, technology infrastructure is an important factor in using a technology-driven tax compliance system. System security is the major part of building the trust to use tax systems by taxpayers. The lack of understanding about the RAMIS system with the taxpayers creates a barrier for them to adopt technology and comply with Sri Lanka taxes.

*I honestly do not think IRD or whoever implemented the RAMIS might have looked at all the issues. What if Ransomware attacks the system? What government do in that situation? How is our data secured? How they maintain confidentiality for our data?”*

Intention to adopt technology for paying and filing taxes influence based on perceived trust in the technology and the power of authority use technology.

### Conclusion

With the advancement of technology, the digital economy emerged and could not ring-fence with a normal economy. There is a growing concern about taxing digital business conduct among policymakers worldwide. However, prior research has not acknowledged the influence of technology advancement on tax compliance behavior. Therefore, it is important to study how technology influences tax compliance decisions.

This research adopted the interpretative phenomenological approach in understanding micro multinationals' tax compliance behavior in Sri Lanka. Interview data collected from the semi-structured interviews were analyzed through thematic analysis. Despite the research being conducted in Sri Lanka, the findings provide direction for researchers in other countries to evaluate entrepreneurs' level of tax compliance in the digital economy.

There are two tax compliance strategies – Voluntary Compliance and Enforced Compliance. Kirchler (2007) identified that voluntary compliance is improved when taxpayers establish trust with the tax authority. When there is a non-compliance situation tax authority needs to use enforcement strategies to correct taxpayers' compliance behavior. Based on the perceived trust in technology and the power of use technology in tax compliance, this study reveals that confirmatory compliance requires to adopt by tax authorities as a new strategy in the digital economy.

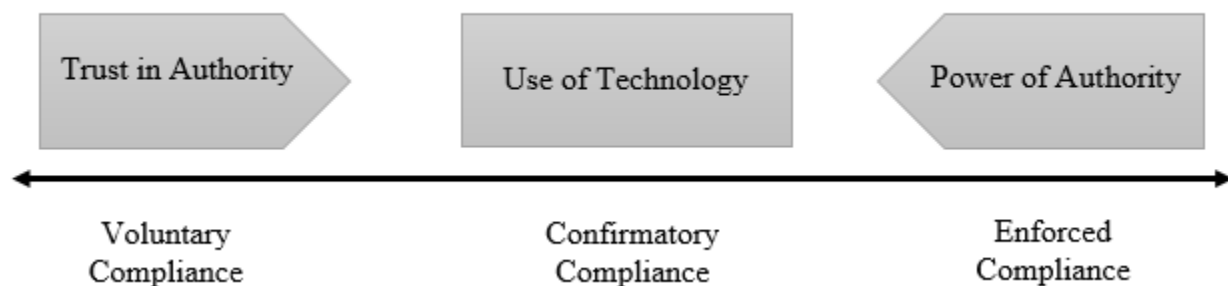


Figure 2: Compliance Continuum



## Limitation and future research direction

Despite the significant contribution brought into the body of tax compliance literature, this study has several limitations. The sample of respondents represents only the tech industry in Sri Lanka. Several players in the tax compliance ecosystem – taxpayer, tax authority, policymakers, tax agent, and tax adjudicators. This research focuses on understanding how entrepreneurs perceived technology used by the tax authority to improve tax compliance. A dynamic triangulation approach for data collection would be advisable with many participants to get an in-depth insight into the tax compliance behavior. Tax is something complex and regulatory in nature, influence by many factors. To strength the findings, it would be useful to adopt a mixed-method approach, whereby the perception of all parties playing in the tax compliance ecosystem may obtain.

This research contributes to the body of tax compliance literature from theoretical and practical perspectives. From the theoretical perspective, this research contributes to understanding tax compliance behavior by developing a theoretical framework to evaluate the compliance behavior adopting the Unified Theory of Acceptance and Use of Technology model in taxation. From the practical perspective, this research study the compliance behavior of digital entrepreneurs in Sri Lanka. The findings would be beneficial for Department of Inland Revenue and Fiscal Policy Developers of the Country to understand the country's lower level of tax compliance and what factors to look at in developing a responsive tax system in the future.

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